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Facts and figures on educational implications of estimated changes in the American economy, society, and culture to 1985. Five problems are covered in charts and text: (1) the outlook for population changes for the country as a whole and by categories of the population, (2) the outlook for jobs and implications for training the labor force, (3) the outlook for college and university enrollments—particularly in private institutions, (4) the economic outlook with special reference to costs of higher education, and (5) implications of projected changes for the average private college.

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Letter to a College President

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THE FUND FOR THE ADVANCEMENT OF EDUCATION *Established by The Ford Foundation*

Letter to a College President

On the Need for Long-Range Planning

By Sidney G. Tickton

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Established by The Ford Foundation

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May, 1963

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Senior Statistical Associates: HAROLD WOLOZIN
ELMER JACOW

Statistical Associates: VIVIAN J. KAPLAN
BERENICE JACOBS
REVA S. TICKTON

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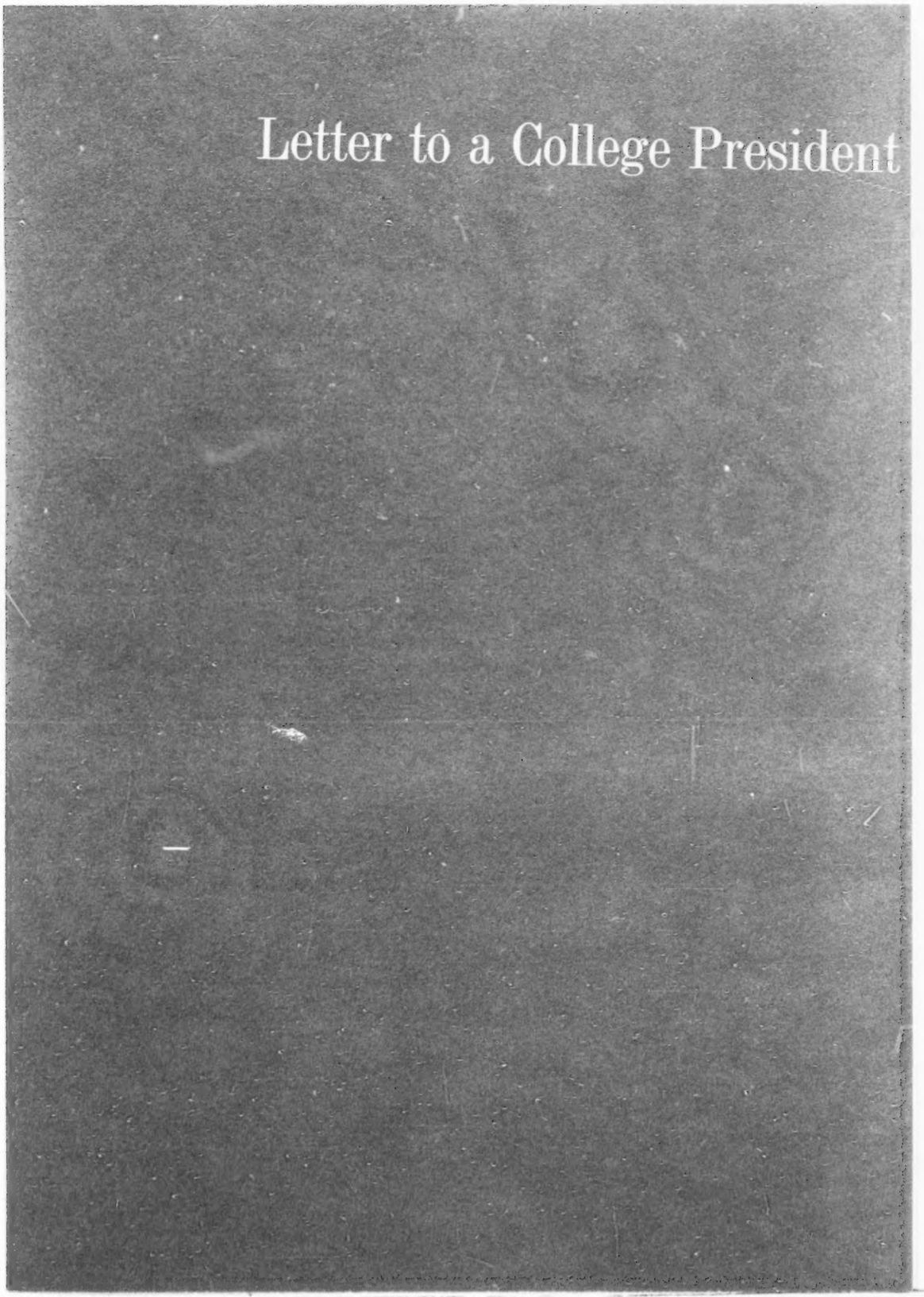

Letter to a College President

On the Need for Long-Range Planning

May 10, 1963

Dear Mr. President:

Early in 1959 I put together the first long-range planning projection for an institution of higher education.

Six months later I polished up the material, inserted some revised figures, and produced the Ashford College case study which was described by the McGraw-Hill people who published it as "a new tool for college and university management."*

In the next 36 months, that case study and the blank projection forms which go with it were used as a basis for projections by over 300 private colleges and universities. More than 200 of

*Dexter Keezer et al, *Financing Higher Education 1960-70*, McGraw-Hill Book Company, Inc., New York, 1959.

these institutions debated their assumptions, their figures, and their problems in laying out a course of action for the future at the long-range planning seminars sponsored by the Fund for the Advancement of Education.

Recently the question has been raised as to why the technique of long-range budgeting, used for many years by business but never before applied to colleges and universities, suddenly caught on. The answer is that this was the time when colleges and universities really needed a new tool of management because higher education was feeling the first puffs of the breeze that is about to develop into a hurricane of changes.

These changes can be expected to be dramatic, probably traumatic, and possibly fantastic in dimension. Jesse Hobson, former director of the Stanford Research Institute, pointed out in a speech a few months ago that the changes in our economy, our society, and our culture during the next forty years, to the year 2,000, can be expected to equal in significance the changes of the past 400 years, all taken together. There is no need to dispute him. Even if he were only half right, his observations were intriguing. They prompted me to send my statistical associates to Washington searching for facts and figures that would throw light on the educational implications involved. I asked them to dig into government files — at the Census Bureau, the Office of Education, the Bureau of Labor Statistics, and other agencies in Washington. Some of the materials they found were published; much is unpublished and still in worksheet form. The purpose of these investigations was to come up with the best possible answers to five questions:

1

What is the outlook for population changes for the country as a whole, and by categories of the population?

2

What is the outlook for jobs, and what does this imply when it comes to training the labor force?

3

What is the outlook for college and university enrollments, particularly with respect to private as compared with public institutions?

4

What is the economic outlook; and if higher education can be expected to cost more, can the country afford it?

5

What does all of this imply for the average private college?

In order to pin down some answers to these questions, I asked my statistical associates to make projections for a generation ahead where possible (that is, from the "actuals" of 1960 or 1961 to, say, 1985), not because these could be considered as precise figures but because they would provide magnitudes to be kept in mind as policy decisions for higher education are made within the next few years. Briefly, the answers to my questions, the considerations involved in arriving at these answers, and a short summary of the most relevant statistics are as follows:

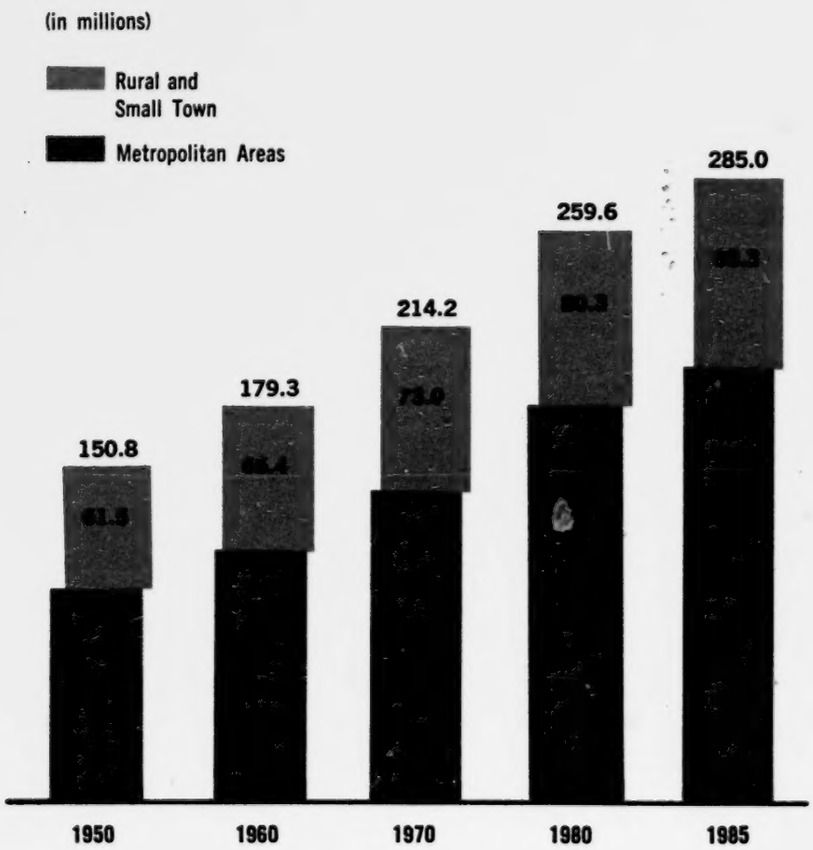
1 WHAT IS THE OUTLOOK FOR POPULATION CHANGES?

Changes in the total: During the generation ahead, the population of the United States can be expected to grow — not so rapidly as during some years in the period immediately after World War II, but certainly at a high rate compared with prewar experience. In a conservative projection the U. S. Bureau of the Census estimated that the total population can be expected to rise from 179 million in 1960 to 214 million by 1970, to 260 million by 1980, and to 285 million by 1985 (see Chart 1.)

These figures assume that the birth rate will be at the 1955-57 levels during the generation ahead—not the highest level reached during the postwar period but a reasonably high level nevertheless. After some study and discussion with the Census Bureau people, we believe this assumption is as reasonable a basis for forecasting as can be developed at the present time.

CHART 1

U.S. POPULATION 1950-1985
BY GEOGRAPHIC AREAS



As the total population grows there will be an increasing concentration in metropolitan areas — the 212 largest cities and their suburbs. This shift in population from rural and small town areas to urban and suburban centers started nationwide during the depression, accelerated during the war and early postwar period, and has continued persistently since. The Census Bureau believes that it will continue for at least a generation ahead.

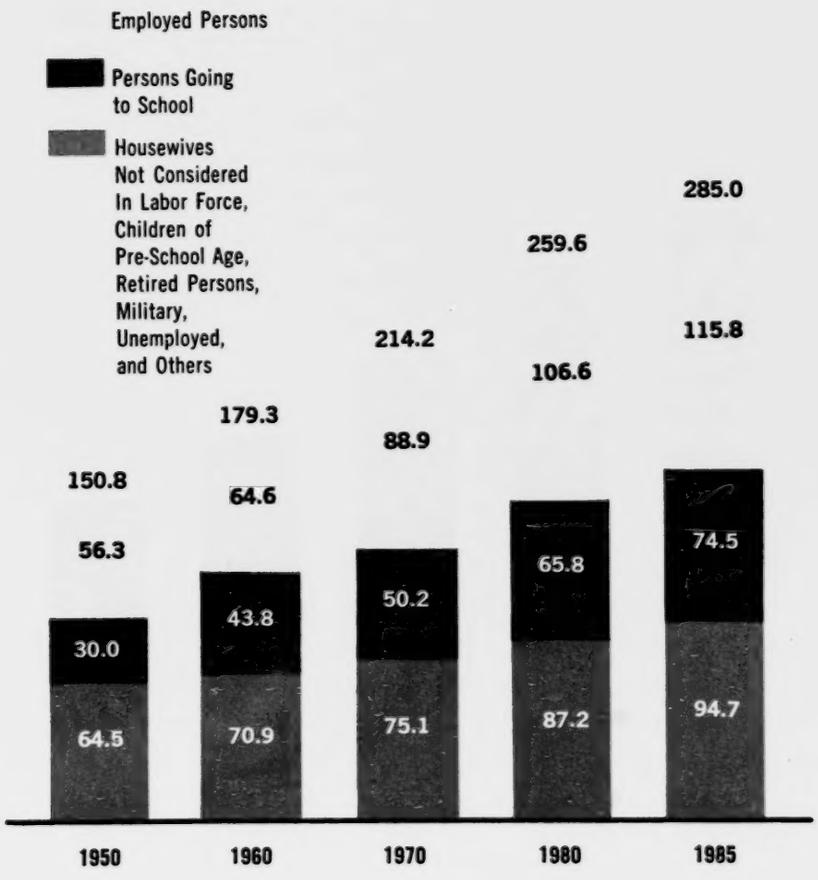
Changes in categories of the population: During the past 10 or 15 years, federal government agencies have paid a great deal of attention to the composition of the population throughout the country. The reason was that many federal policy decisions have depended upon how many people there were in the labor force, how many unemployed, how many old people, how many school children in federally impacted areas, etc.

My statistical associates checked government files for useful data and projections for the generation ahead. The "best guess" conclusions from the figures — and they obviously can only be best guesses — is that in the years ahead the nation can expect a 79 per cent increase in the number of employed persons (from 64.6 million in 1960 to 115.8 million in 1985 — see Chart 2), and a 70 per cent increase in the number of children and young adults going to school or college (from 43.8 million to 74.5 million). Increases in other categories can be expected too — for example, housewives not considered members of the labor force, children below school age, retired persons, military personnel, possibly the unemployed, etc.—but proportionately the increases in these groups are not likely to be so great as in the others.

CHART 2

U.S. POPULATION 1950-1985
BY ACTIVITY CATEGORIES

(in millions)



Here obviously a number of alternative forecasts could have been made, but we considered the figures in Chart 2 the most reasonable in the light of nationwide trends in births and deaths, the tendency of women to return to the labor force once their children are beyond the age when they need all day care at home, and the tendency of young people to stay in school longer than heretofore.

Against this background showing an increase in the population and an increase in the labor force my statistical associates next considered the second question:

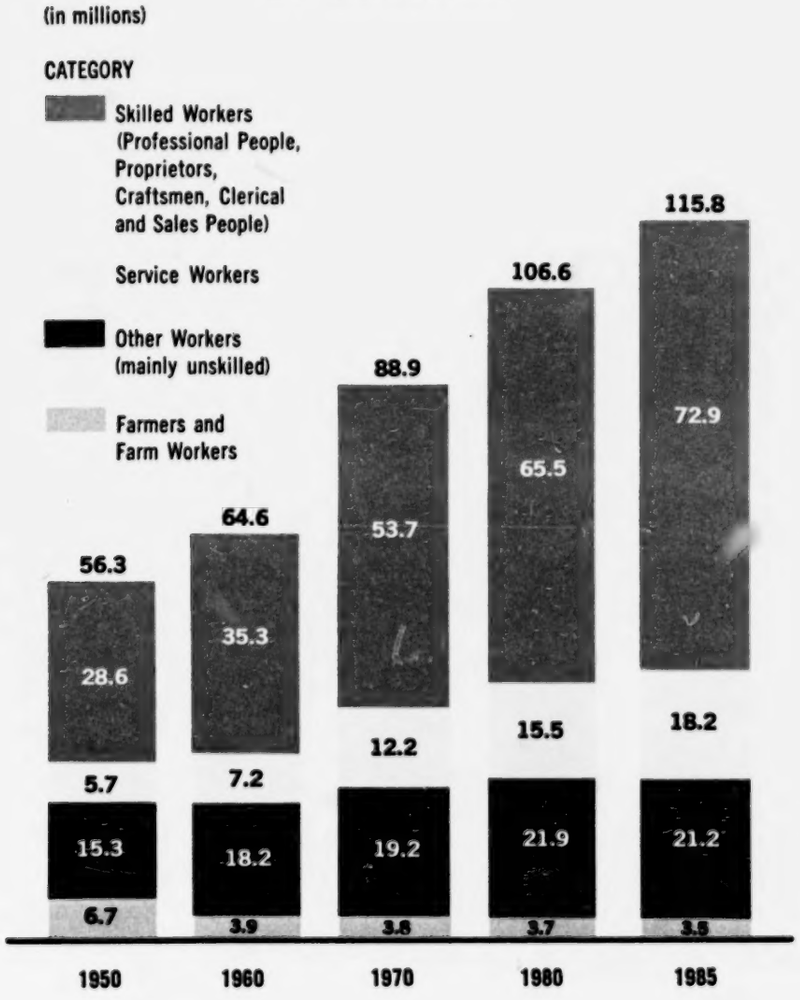
2 WHAT IS THE EMPLOYMENT OUTLOOK AND WHAT DOES THIS IMPLY FOR THE TRAINING OF THE LABOR FORCE?

Outlook for employment: Throughout the country there is a trend toward mechanization and automation both on the farm and in industrial activities. This can be expected to continue, even accelerate, in the future. Many believe it is reasonable to foresee a continued replacement of unskilled workers by skilled personnel, an increase in the number of sales and service people, and a decline in the number of farmers and farm workers. The number of women employed outside the home can be expected to increase; on the other hand, older people will leave the labor force more rapidly than, say, a generation or two ago. There will be fewer jobs for unskilled people than there were when the country was primarily an agricultural economy. A distribution of employment, 1950-1985, divided into a number of broad categories is shown in Chart 3.

CHART 3

EMPLOYMENT IN THE U.S. 1950-1985

BY CATEGORIES



Implications for training the labor force: By 1985 more than half the labor force will consist of people who are now in school or college and the proportion will grow rapidly as the years proceed. By 1985 we expect to live in a nation that will require highly trained and highly skilled people, most of whom will have obtained a large portion of their training in schools, colleges, and universities. The job for the nation's educational authorities is to establish a system of education from kindergarten through graduate and professional schools which will provide this training when it is needed, where it is needed, and in the various types that are needed, all at a reasonable cost.

Having looked at the population and labor market possibilities in the generation ahead, my statistical associates turned to the third question:

3 WHAT IS THE OUTLOOK FOR ENROLLMENTS IN COLLEGES AND UNIVERSITIES IN THE GENERATION AHEAD?

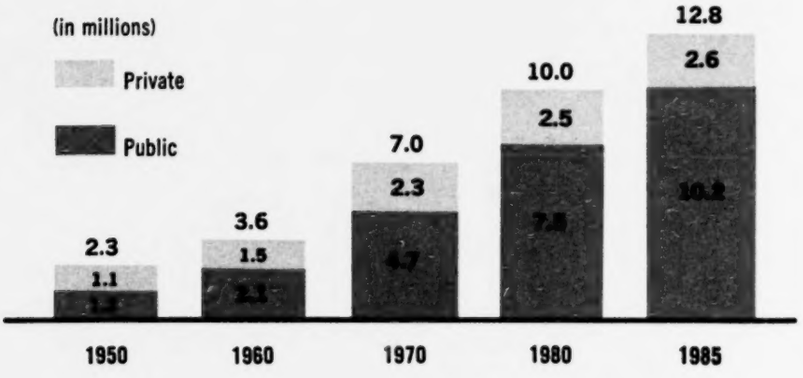
Increase: A conservative estimate is that the number of persons who are able to do post-high school work, and seeking to go to colleges and universities, full time or part time, can be expected to double between 1960 and 1970, triple by 1980, and continue upward thereafter for many years to come (see Chart 4).

Private colleges and universities can be expected to expand from 1.5 million students in 1960 to 2.3 million students in 1970, an increase of 53 per cent in ten years, and then to grow rather

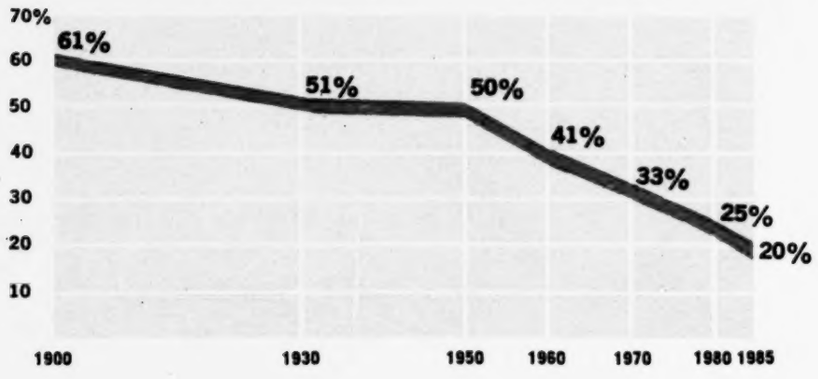
CHART 4

COLLEGE AND UNIVERSITY ENROLLMENTS
PUBLIC AND PRIVATE INSTITUTIONS
1950-1985

NUMBER ENROLLED



PERCENT IN PRIVATE INSTITUTIONS



slowly in the years beyond. Public colleges and universities, including public junior colleges, will grow rapidly, however — from just over 2 million students in 1960 to no fewer than 10 million by 1985. As a consequence, the percentage of college enrollments in private institutions can be expected to decline — from the 61 per cent noted at the beginning of the century (Chart 4) to 41 per cent in 1960, to not more than 20 per cent of the total a generation hence.

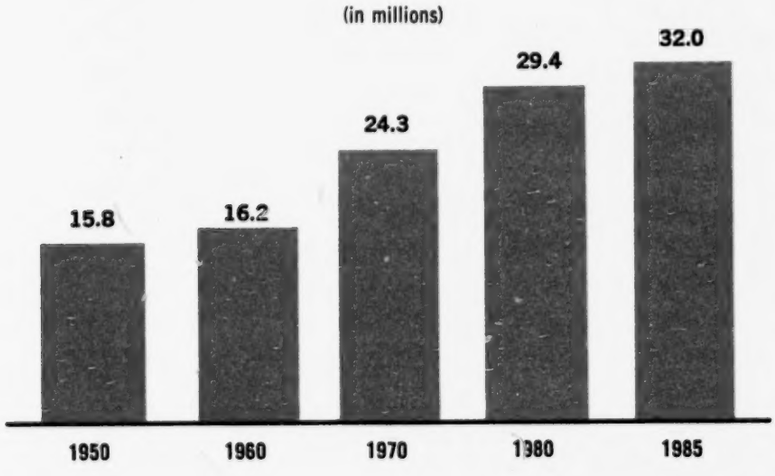
Factors in the growth: Two main factors underlie the expected growth in the number of college and university students:

- An increasing number of young people of college age (18-24 years of age) — from 16 million in 1950 and 1960 to 32 million in 1985, and
- An increasing proportion of young people attending colleges and universities, both full-time and part-time (up from 15 per cent in 1950 to 40 per cent in 1985) — see Chart 5.

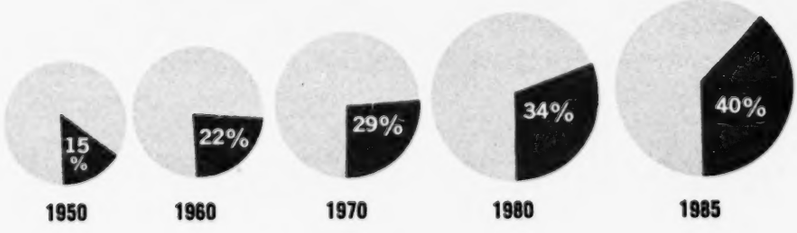
CHART 5

TWO FACTORS IN BOOMING ENROLLMENTS

1. MORE COLLEGE AGE PEOPLE (18-24 YRS.)



2. LARGER PERCENT IN COLLEGE



My statistical associates believe that these are conservative estimates; that the "actuals" could well be higher. The emerging evidence is that "going to college" is rapidly becoming as important to many individuals, and to their parents, and as necessary to the welfare of the country, as going to high school became during the period between the two world wars.

Moreover, going to college is economically possible now for a large proportion of our population. This comes as a result of the increased national income since World War II and its wide dispersion among the people. There has been a reduction in the need for parents to require children to support themselves or to augment the family income after they finish high school. Many parents now consider a college education for a child as a kind of "consumer good," the purchase of which can be an alternative to the purchase of a new car, a long vacation trip, a new home, etc.

Against this background it is reasonable to conclude that if business continues at prosperous levels in the future and personal incomes remain high, a large proportion of parents can be expected to find ways to send their children to college despite the costs involved. On the other hand, if business is at relatively low levels there will be substantial unemployment among unskilled young people. Many could then be expected to enroll in colleges and universities, possibly with scholarship aid from government agencies.

The fourth question studied by my statistical associates consisted of three parts:

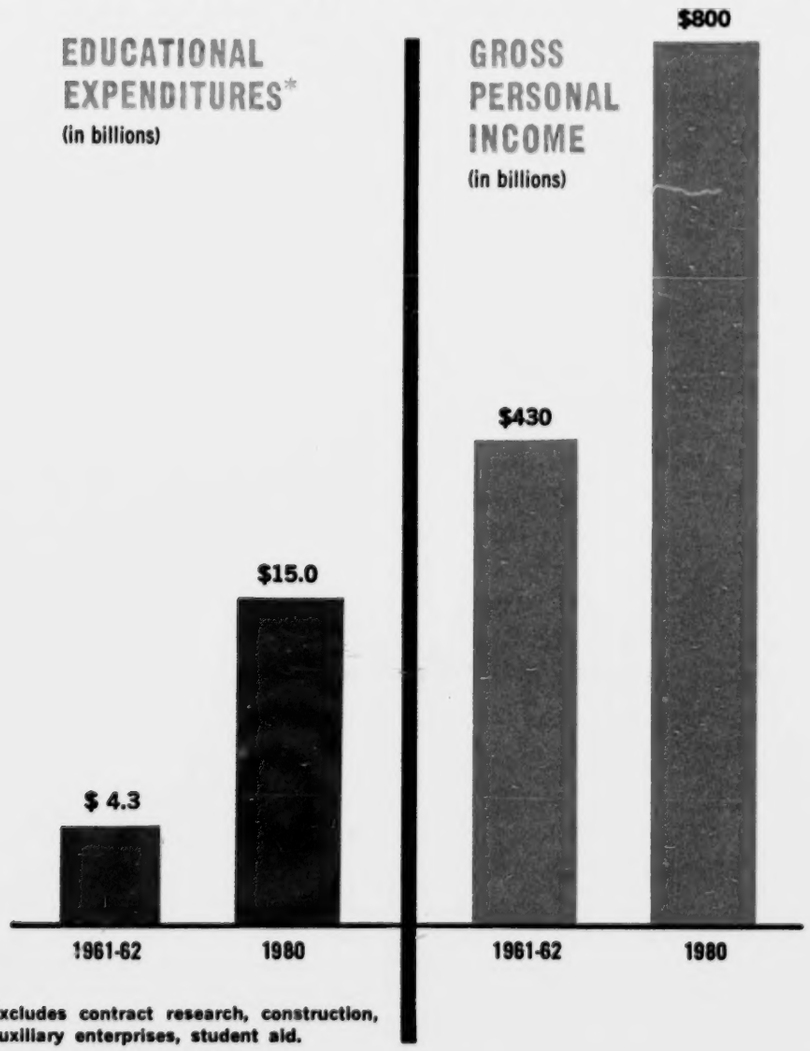
4 WHAT IS THE ECONOMIC OUTLOOK IN THE YEARS AHEAD? WHAT CAN HIGHER EDUCATION BE EXPECTED TO COST, and IF THE COSTS ARE HIGHER PROPORTIONATELY THAN HERETOFORE, CAN THE COUNTRY AFFORD IT?

Economic outlook: Since the war, leading economists have been studying the economic, demographic, political, and sociological factors that affect the activities of this country. It is their conclusion that in the years ahead (barring war or other national disaster) the people of this nation can expect to have a greatly expanded personal income, and that this income will be available to pay for a great expansion in the volume of goods and services enjoyed by our people, including additional higher education if they so desire.

The Committee for Economic Development (an organization long involved in careful and reliable studies of economic trends) has translated the economic conclusions into figures. Using a set of reasonable assumptions on economic growth in the future, these figures lead us to believe that the gross personal income of all individuals in the United States can hardly be less than $800 billion by 1980 compared with $430 billion in 1961-62 (see Chart 6)—an 86 per cent increase with inflation excluded. We

CHART 6

EDUCATIONAL EXPENDITURES AT COLLEGES AND UNIVERSITIES COMPARED WITH GROSS PERSONAL INCOME



*Excludes contract research, construction, auxiliary enterprises, student aid.

as a nation can achieve this great increase in income, say nationally known economists, because day after day we are bringing to bear on the expansion of industrial productivity all the ingenuity, the inventiveness, and the ability of our people. Further, we are concentrating more time, effort, and money on research and development on the problems of mankind than the world has ever known.

Higher education costs: A hundred long-range projections in my files from colleges across the country as well as data in the files of government agencies indicate that the cost of higher education is rising and can be expected to rise rapidly in the future. A good guess is that total operating costs — that is, educational and general expenditures for all colleges and universities, excluding construction, auxiliary enterprises, scholarships, and contract research — will rise from $4.3 billion in 1962 to no less than $15 billion by 1980 (see Chart 6). Admittedly this is a pretty rough estimate but it is close enough to use for analytical and planning purposes.

Can the country afford such great expenditures for higher education? If personal income rises along the lines shown in Chart 6 (and this appears to be reasonable and possible in the absence of war or other national emergency), the answer is clear: certainly the country can — if its people are willing to allocate the additional dollars that will be required. The amount involved will be a small percentage of the increase in personal income and productivity of the country and even a smaller percentage of the total personal income. Financing higher education is, therefore, a problem of policy, not of resources. The problem is to select the

basis on which to make a small portion of the increased income and productivity of the country available for a service the people need and desire.

The next question considered by my statistical associates was:

5 WHAT DOES ALL OF THIS IMPLY FOR THE AVERAGE PRIVATE COLLEGE?

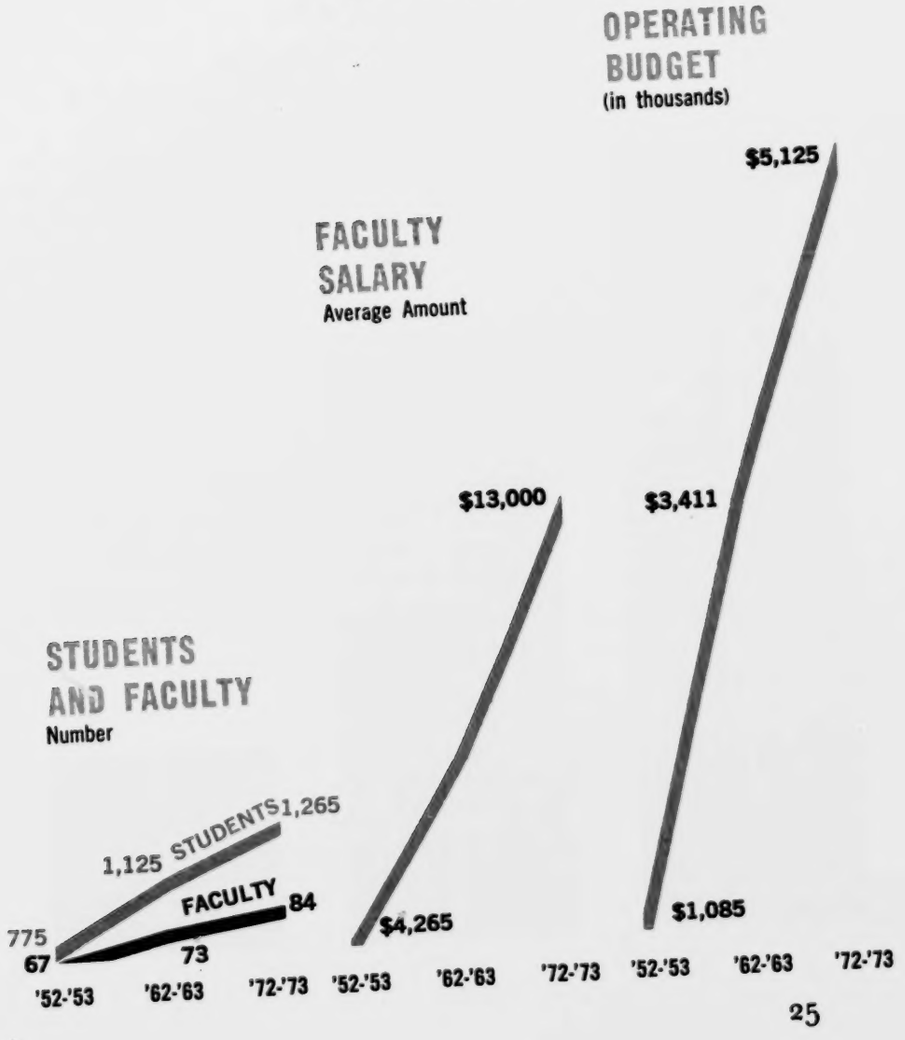
In order to arrive at some answers we studied the 20-year period, 1953 to 1973, at "Ashford College," the typical strong liberal arts college used as a basis for my report on the ten-year college budget.* Ashford, you may recall, is a 125-year old institution located in a town of 30,000 in the Midwest. It now enrolls 1,125 students, 60 per cent of whom are men. The student-faculty ratio has been growing moderately, from 12 to 1 in 1952-53 to 15 to 1 at the present time, partly as the result of filling up the junior and senior classes. This year there will be 190 B.A. graduates, 55 per cent of whom go on to professional or graduate school. The students are better today than they used to be, the average college entrance score having jumped more than 100 points in the past five years. The faculty is better qualified, too, and much better paid than a few years ago.

Chart 7 shows how the picture looks as Ashford. Briefly, the outlook is for a 63 per cent rise in student body from 1953 to

* Sidney G. Tickton, *Needed: A Ten-Year College Budget,* Fund for the Advancement of Education, New York, 1961.

CHART 7

VITAL STATISTICS FOR ASHFORD COLLEGE
1953-1973



1973, a 25 per cent rise in faculty, and a 205 per cent increase in salaries. The operating budget jumps from $1,085,000 to $5,125,000, 372 per cent, in a 20-year period. This includes educational and general expenditures, scholarships, and auxiliary enterprises. Expenditures for construction are excluded because of their irregular timing, but they would be in addition to these totals and are expected to average nearly $1 million a year for the next ten years.

This rise in expenditures is moving Ashford from a little corner-store type of activity to a big business operation. Five million dollars a year plus a million dollars of construction is a sizeable total. Management practices consistent with this expenditure level are certainly required. For one thing, Ashford has already found that it needs more highly-experienced operating personnel. For another, the administrative officers know they have to be a great deal more careful about mistakes — even a small one can be very costly. For example, the President observed recently that putting a faculty member on tenure can be a $300,000 decision and should be considered accordingly. He also observed that "Old Main" is 105 years old and still in very active use — to emphasize the fact that if a building mistake is made, the college has to live with it a very long time.

My statistical associates believe that the rate of rise in expenditures at Ashford is going to be typical of private liberal arts colleges across the country. At universities, with their expanding research budgets and professional schools, the percentage increase may be even higher.

Where is the money coming from to meet the expenditure rise? At Ashford it's coming from:

- Parents of students and the students themselves—for most of the operating budget including the operation of dormitories, dining halls, and other auxiliary enterprises;
- Government (mostly taxes)— for dormitory and student aid loans, some scholarships, hopefully some construction grants; and
- Private donors—for endowment and most of the plant and scholarship funds.

Will the students or their parents be able to afford the increased tuition that Ashford (and all other private colleges and universities) will have to charge? Ashford's president and trustees believe:

They can—with the aid of substantial scholarship money, and

They will—if the education provided is distinctive, has a high degree of excellence, and is sufficiently differentiated from that provided by other types of higher education institutions to be worth the higher price.

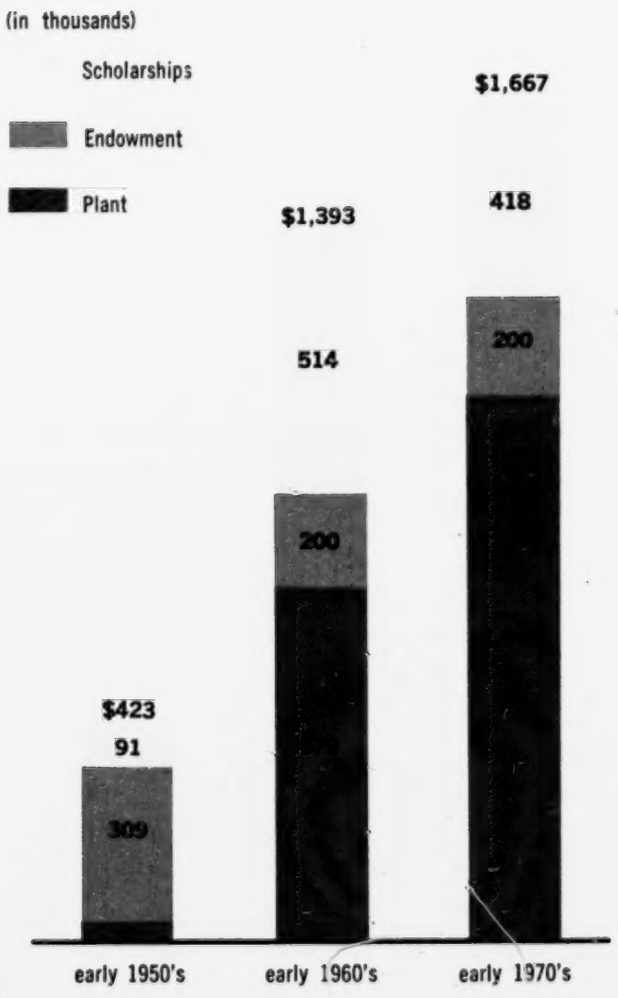
As a corollary, however, Ashford's president believes that a college administrator must use every opportunity, method, or device available to operate his college as efficiently as possible, given its objectives and capacities.

What about the fund-rasing problem? In order to portray the magnitudes involved at Ashford, I asked my statistical associates to figure a five-year average so as to smooth out

CHART 8

FUND RAISING AT ASHFORD COLLEGE

5-YEAR AVERAGES, BY PURPOSES



irregular fluctuations due to fund-raising campaigns and the unregulated timing of receipts from bequests. The figures show that Ashford's fund raising was running at the rate of $423,000 a year during the early 1950's; it is running at the rate of $1,393,000 a year during the early 1960's; and will be at a rate of no less than $1,667,000 a year in the early 1970's (Chart 8).

Ashford is in the midst of a special fund-raising campaign at the present time. Its 1963 figures are a little higher, therefore, than they might otherwise have been. Skipping over this temporary factor, however, it is clearly evident that on the average Ashford's fund-raising effort can be expected to be four times larger in the earlier 1970's than it was during the early 1950's.

As mentioned earlier, Ashford represents a typical small private liberal arts college. What, then, do its figures indicate for the average college or university, public or private? I believe they show that the trend will be upward for a long time to come — more students, higher student-faculty ratios, higher tuition, higher faculty salaries, larger budgets, much more fund raising.

An upward trend in a changing world underscores most eloquently the need for long-range planning. It warrants your earnest, continuous, and active consideration.

Cordially yours,

Sidney G. Tickton

SIDNEY G. TICKTON
Program Associate

APPENDIX

Persons Consulted In the Preparation of this Report

DONALD S. AKERS, *Statistician,* Population Projection Branch, Bureau of the Census, Department of Commerce

ROBERT BOKELMAN, *Chief,* Educational Expenditures Division, Office of Education, Department of Health, Education, and Welfare

EDWIN J. COLEMAN, *Economist,* National Income Division, Office of Business Economics, Department of Commerce

LOUIS J. CONGER, JR., *Director,* Studies and Surveys Branch, Division of Educational Statistics, Office of Education

W. VANCE GRANT, *Statistician,* Educational Statistics, References, Estimates, and Forecasts Branch, Office of Education

WARD JONES, *Statistician,* Population Projection Branch, Bureau of the Census, Department of Commerce

CHARLES B. NAM, *Chief,* Education and Social Stratification Branch, Bureau of the Census, Department of Commerce

KENNETH A. SIMON, *Chief,* Educational Statistics, References, Estimates, and Forecasts Branch, Office of Education

SIDNEY SONNENBLUM, *Director of Research,* National Planning Association

Persons Consulted In the Preparation of this Report (continued)

DONALD STARSINIC, *Statistician,* Population Projection Branch, Bureau of the Census, Department of Commerce

MRS. ROSE MARIE WALKER, *Statistician,* Educational Statistics, References, Estimates, and Forecasts Branch, Office of Education

MEYER ZITTER, *Chief,* Population Projection Branch, Bureau of the Census, Department of Commerce

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